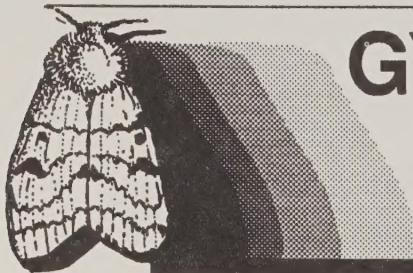


Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

SB 10
GAGG



GYPSY MOTH NEWS

Northeastern Area

USDA
Forest Service

July 1990
Number 23

USDA LIBRARY
AGRIC LIBRARY
1983 SEP 30 A 8:01
ENT. SERIAL RECORDS
COLLECTORIALS BRANCH



Photo courtesy of Courier-Post

Fourth grade children from West Deptford Township, NJ, participating in a gypsy moth educational experience.

the following, a small amount of which is to be added to each bottle of water containing the solution of the drug.

	Page
From the Editor	1
Letter to the Editor	1
The Gypsy Moth in the Classroom: A School-Based Approach to Gypsy Moth Education	1
Building a Public Relations Program	3
Gypsy Moth Program Public Relations: A County Perspective	4
The Ingredients of a Successful Gypsy Moth Public Involvement Program	6
Gaining Support for British Columbia's Gypsy Moth Wars 1978-1988--A Case Study In Public Relations	9

GYPSY MOTH NEWS is a service of the USDA Forest Service, State and Private Forestry, Forest Pest Management, 5 Radnor Corporate Center, 100 Matsonford Road, Suite 200, Radnor, PA 19087.

It is distributed quarterly to individuals and organizations without fee. Products mentioned by name within articles are not necessarily endorsed by the USDA. Statements made by contributors from outside the USDA do not necessarily reflect policy of the USDA. Use of graphics or reprints of articles should cite the Gypsy Moth News as their source.

Address correspondence to the Editor.

Editor, Daniel B. Twardus
Managing Editor, Helen A. Machesky

Gypsy Moth News
USDA Forest Service
180 Canfield Street
Morgantown, WV 26505

FROM THE EDITOR

There are two major components in a gypsy moth spray program. One, of course, is the actual spraying and all of the technical aspects associated with spraying. The other is educating, informing and involving the public about the gypsy moth. All government agencies involved in a gypsy moth program are doing so presumably to satisfy the desires of the public. Understanding those desires then is very important to the success of the program. What happens if there are conflicting desires? Or worse, what happens if some of those conflicting desires result from a misinformed or uninformed public? It is in these situations that agencies often find themselves bogged down in debate, litigation, or simply out of business.

The gypsy moth is a tough problem. Many people will testify to the incredible nuisance caused by caterpillars crawling through their yards. Defoliation of trees can ruin a summer for homeowners. And, defoliation can kill trees causing loss of real estate value or timber loss. Solutions, however, often involve insecticides--poisons! People don't often understand the gypsy moth--but insecticides--now there's a topic we can all discuss. Need proof--ask apple growers and the manufacturers of Alar.

The gypsy moth is a topic people develop strong feelings about--one way or the other. It makes sense then that the public learn about the problem and its solutions. In this issue several people involved in the business of informing and educating the public have provided their own perspectives and experiences. Our lead author, Erik Mollenhauer, introduces his "Gypsy Moth in the Classroom" program. Erik's project was recently selected by the New Jersey Association of Conservation Districts as the Outstanding Conservation Education Program of the year. I urge you take a look at Erik's innovative approach to not only informing but educating the public. The Maryland, Michigan, and British Columbia authors describe public information from their respective frontlines. Terry Frey, a Forest Service public affairs specialist, describes his own viewpoints from the perspective of the challenging Appalachian Integrated Pest Management program for gypsy moth.

LETTER TO THE EDITOR

In the March 1990 Gypsy Moth News, a question was raised about the effectiveness of household cleaning products in destroying egg masses. Michael Montgomery, Research entomologist with the USDA Forest Service, Hamden, CT, writes:

"Win McLane (USDA APHIS) evaluated soaps and oils for several years. At concentrations of 25 percent or greater, significant reductions in egg hatch were often, but not always, observed in the tests. Much more effective were oils of several types including soybean oil."

Editor's Note: For more information about the effectiveness of soaps and oils in destroying egg masses, contact Win McLane, USDA APHIS, Methods Development Lab., Building 1398, Otis ANG, MA 02542

THE GYPSY MOTH IN THE CLASSROOM: A SCHOOL-BASED APPROACH TO GYPSY MOTH EDUCATION

ERIK MOLLENHAUER
Educational Consultant
Pitman, New Jersey

"The more things change, the more they stay the same." The gypsy moth invasion of North America has lasted 121 years now. For most of that time Americans have done their best to suppress, control, and kill the invaders, using the latest technology and budgets that might stagger the imagination if anyone spent the time to total them. Yet the gypsy moth continues, year by year, to win the war. That much is the same.

What is changing, it seems, is our belief that we will someday be rid of this pest. In 1990, we more freely admit that this outbreak is only the latest skirmish and people will face the problem again and again, that new hot spots will continue to appear in States outside the infested areas, until the gypsy moth claims North America as conquered territory.

If we cannot rid North America of the gypsy moth, then how do we create an informed public able to deal with the problem in a rational manner? What do people need to know and do, both in the far corners of the forest and the near corners of their backyard? How do we practice truly integrated pest management, where public education is treated as an integral component and not a frill? The "Gypsy Moth in the Classroom" may provide some answers to these questions.

The "Gypsy Moth in the Classroom" is a school-based program designed especially for elementary grades but easily adapted to middle and high school levels as well. The project was developed in 1988-89 with a grant from the USDA Forest Service, Northeastern Area State and Private Forestry in cooperation with the New Jersey Departments of Agriculture and Forestry, and the West Deptford Township Schools, West Deptford, New Jersey.

What makes the project unique is that students and their teachers rear live gypsy moths in the classroom, from eggs to adults. The gypsy moths are reared from mid-March to mid-May using an artificial diet. During this time, students participate in a series of activities designed to teach them and their parents about the gypsy moth and how people can work to control them (or at least live with them).

After several months of "field testing" the project with five elementary teachers and their classes, a curriculum guide for teachers was produced in August 1989. The guide includes sections on the history and life cycle of the gypsy moth, classroom rearing techniques and a series of classroom activities complete with reproducible student worksheets. The project is easy to start, easy to run, inexpensive, and requires minimal space in the classroom. Most materials can be begged, borrowed, or substituted for, while ten dollars of artificial diet will raise a small army of caterpillars.

People who hear about the project for the first time usually say, "Surely there are enough gypsy moths already. Why do you want school children to raise even more. What if the caterpillars escape?" There are several responses to this question.

First, the project does not create more gypsy moths. The project begins in late winter with the teacher finding an egg mass outdoors and bringing it into the classroom. The egg mass would

have hatched anyway. It may as well hatch in the classroom where it can do some good. In fact, anywhere in the U.S. where egg masses can naturally be found, it makes sense to encourage teachers to raise them in the classroom as a means of public education.

When gypsy moths are reared in the classroom, escapes are not a problem due to the timing of the project. Caterpillars that escape in March and April do not have foliage to feed on and will starve. Adult males that escape in May cannot find wild females to mate with and are drawn back to the classroom by the lure of captive females.

In fact, it is the timing of the project that gives it immediate relevance and significance to students. Just when the project concludes in May, wild gypsy moths are becoming a visible nuisance outdoors.

It is also possible to do a modified version of the project in States outside the infested areas, where it would be illegal to raise gypsy moths. This can be done by having teachers raise tent caterpillars and use them as a "foil" to teach about gypsy moths. Tent caterpillars are found across the United States and are so often confused with gypsy moths that they are a natural stand-in.

Serendipitously, the Forest Service recently published a fact sheet that compares the eastern tent caterpillar to the gypsy moth. Recognizing the utility of this approach, the modified version of the project is currently being introduced in the Utah area by the Forest Service.

The project was developed in elementary grades for several reasons. Unlike teenagers and adults, young children are curious about insects, take an interest in them, and are less likely to find them offensive.

Younger students are also more enthusiastic about school in general and science in particular. They are more likely to go home, talk to and involve their parents in school activities. Since it is a goal of the project to educate parents as well as students, this is an important consideration.

Gypsy moths can be used to illustrate many topics that schools already teach, such as insects, food chains, animal populations, and so on. Rearing caterpillars provides students with an interesting

activity, in the same way that teachers often have gerbils or other small animals in a classroom. Teachers can spend as little or as much time on the project as time permits.

The Gypsy Moth in the Classroom project was expanded in 1990 with funding from a second grant. A major focus of the grant was an aggressive effort to get the project into the hands of teachers and educators who will use it. This effort has resulted in workshops and presentations at the local, State, regional, and national levels, in ten different States and the District of Columbia.

Accessory materials including an instructional videotape and an educational board game, which can be used independently of the rearing project, have been developed.

Reaction to the project has been overwhelmingly enthusiastic: "outstanding quality and professional execution" (Northeastern Area Association of State Foresters), "truly an inspiration to those of us involved in gypsy moth education" (Nancy Campbell, former Michigan District Extension Leader), "the best resource on the gypsy moth I've seen in 20 years as an agricultural agent" (Ed Milewski, New Jersey Agricultural Agent), "the teachers are excited and motivated" (Susie Oliphant, Director of Curriculum for Science, Washington, DC), "Every teacher who attended the workshop is chomping at the bit" (Kathy Berry, Lead Science Teacher, Canonsburg, PA), "informative, interesting, accurate, and well-balanced" (Bill Wentzel, Forester for Washington County, PA), "extremely well presented, organized and understandable" (Harold Kuschnik, Ganaraska Region Conservation Authority, Ontario, Canada), "innovative and presented with considerable imagination" (Alan Cameron, Professor, Penn State University), and "Congratulations on a job well-done" (Bill Hatfield, Hatfield's Spraying Service, Michigan).

The gypsy moth problem continues to grow. As it does, those people involved in management decisions will hopefully recognize that public education is a primary essential part of any gypsy moth management program.

An effective way to meet the need for education is through a program such as The Gypsy Moth in the Classroom, using schools to systematically reach into all parts of the community. Such an education program should be an on-going part of life in the

infested areas, recognizing that Americans constantly travel through and relocate in or out of these areas.

It is equally important to implement the program in States outside the infested areas, where spot infestations will continue to appear. A minimal public awareness in these areas will enable spot infestations to be caught sooner and dealt with more effectively, making gypsy moth management proactive instead of reactive.

It is also critical to maintain the fundamental triangular partnership of such a program: the Forest Service, working with teachers and schools, through State agencies. The Forest Service has the network and resource base to power a nationwide education effort and is the glue (tanglefoot?) that holds the program together.

The Editor of *Science* magazine, Daniel Koshland, recently observed that in American education, "We have tried money without imagination and it has failed. We have provided imagination without money, and it has failed. Perhaps this time we can provide both ingredients simultaneously. It might be fair, effective, and fun all at the same time."

The Gypsy Moth in the Classroom is an example of a program where both ingredients were applied together.

Current USDA Forest Service funding for the project ends October 1. Anyone wanting more information about "The Gypsy Moth in the Classroom" project should contact: Erik Mollenhauer, Project Director, 309 Roosevelt Avenue, Pitman, NJ 08071; phone: 609-589-4387.

BUILDING A PUBLIC RELATIONS PROGRAM

NANCY CAMPBELL
USDA Forest Service
Forest Pest Management
Missoula, MT

In a joint effort between the Michigan Department of Agriculture and the Cooperative Extension Service, the State of Michigan recently created a gypsy

moth education program. The program is designed to address concerns at both the county and state levels.

Michigan has moved from a suppression program solely to a combined suppression and education program. It is common for people to misunderstand the objectives of the suppression program. Many individuals will view the suppression program as a failure if any caterpillars are remaining. Education is the most powerful tool we have in dealing with the gypsy moth at the homeowner level.

Over the past 6 months, we have made great strides in dealing with public anxiety over the gypsy moth. Educational materials and programs have been developed for a variety of interest groups including: 1) homeowners, 2) local merchants, 3) cooperative extension staff, and 4) county coordinators. One of the most successful programs has been with local area merchants. Merchants attend a workshop where they receive information and training in several areas such as non-chemical and chemical control methods, gypsy moth biology, and pesticide safety.

Recently, efforts have been directed towards establishing a link with State Representatives. State Representatives are encouraged to support the printing and distribution costs of a Gypsy Moth Activity book.

In addition to developing education programs, a good public relations program needs to utilize the media. Television and the radio are excellent means of providing information to homeowners on gypsy moth biology, spray date, and dates of homeowner meetings. Resulting from our educational efforts at all levels of society is a general acceptance of the suppression program and perhaps the pest itself.

The gypsy moth has the potential to threaten tourism, recreation and the timber industry in many parts of the United States including Michigan. A well-organized, aggressive gypsy moth education program is essential for counties and states to move out of the panic stage to a supportive one.

For more information contact: Cora Gorsuch, Project Leader, Michigan Gypsy Moth Education

Program, Cooperative Extension Service, P.O. 439, Harrison, MI 48625.

GYPSY MOTH PROGRAM PUBLIC RELATIONS: A COUNTY PERSPECTIVE

ANNE C. SIELING
Public Information Representative
Anne Arundel County Department of
Public Works
Annapolis, MD 21401

"Why can't my trees be sprayed--I'm a taxpayer. How do I get into the spray program? Why didn't you tell people about the spray program? What are you doing to the environment? Why do we need to spray--the papers say all we need is a virus. What kind of stuff are you using--will it hurt my child, my pet, my garden, my car? Why didn't you warn me? Nobody knew you were spraying in this neighborhood--we don't read newspapers! I want to talk to somebody who knows what they're talking about! Can I be sprayed next year? What do I have to do? What can I do to protect my trees? What is the difference between B.t. and Dimilin?"

Sound familiar? These are just a few of the questions fielded by the staff of the Anne Arundel County Citizen's Response Center, the main switchboard operator, division secretaries, and anyone else who answered the telephone at the Anne Arundel County Department of Public Works in the spring of 1990. What follows are observations on workable ways to inform and educate the public about gypsy moth, its history, its life cycle, the need for aerial intervention, and the responsibility of landowners to protect their trees.

Background

The gypsy moth arrived in Maryland in the 1960's. By 1973, a cooperative treatment program was begun, implemented by the Maryland Department of Agriculture. Since then, gypsy moth has moved to the suburbs in ever-increasing numbers, and seven of Maryland's 23 counties have established gypsy moth programs to supplement state efforts.

Anne Arundel County is located in central Maryland just south of Baltimore and about 30 miles east of Washington, DC. Crossed by a number of major highways, bounded on the east by Chesapeake Bay with over 400 miles of shoreline, the county is experiencing explosive development. County government, led by an elected executive and council, takes pride in responding to citizens' needs, and gives high priority to public relations programs.

By winter 1989, state entomologists estimated egg mass counts of 80,000 per acre in northern areas of the county, and about 23,000 acres with counts in excess of 500. Due to limited resources, the state program would cover just 12,000 "worst case" acres. A gypsy moth task force was convened and recommended creation of a county treatment program to supplement state efforts. Unlike the state's, this program was designed to oversee and coordinate aerial spraying requested and paid for by individual community associations. It was assigned to the Department of Public Works for implementation.

On March 1, 1990, a Gypsy Moth Program Coordinator began work at Public Works. By May 8th, the Department had contracted for an applicator, drawn up spray blocks, and supervised treatment of approximately 7,500 acres with B.t.

Anne Arundel County's Gypsy Moth Information Program

The county program targeted two main audiences: citizens and environmentalists. Program goals were: (1) to educate each audience about the gypsy moth, its life cycle, its eating habits the effect of defoliation on trees, and the need to save the trees to enhance the environment and quality of life in every neighborhood; (2) to explain how the county program worked through community association involvement; (3) to explain how the spray program itself was carried out, what insecticide was used, and how it worked; (4) to encourage homeowners to take the initiative by working through community associations to contract either privately or with the county for treatment.

The Department of Public Works was fortunate to have access to material developed by the Maryland Department of Agriculture's Forest Pest Management Program, which included audio/visual presentations, fact sheets covering the effects of

insecticides, and a flyer illustrating tree banding. In addition, a coalition of county community associations had been formed in anticipation of the fact that the state would not be able to treat all infested areas. Leaders of this group coordinated presentations in each community which were conducted by both state and county personnel. State entomologists provided all survey information to the county program and spray blocks were designated and drawn in a cooperative effort.

Because of the short lead time (March to May) in preparing a program, we kept it simple. A brochure was produced incorporating basic facts to aid homeowners in understanding and helping control gypsy moth. Color pictures were emphasized while copy was kept to a minimum. A video is being produced which documents the aerial treatment program and gives a short lesson on gypsy moth life stages. Scheduled for completion by December or January, it will be available on request. Local newspapers were provided large-scale maps including both state and county spray blocks. This was only partially successful since the maps were run as a community service in two of the papers, but not in a third.

Perception is the key to program acceptance, and the two most valuable public relations tools are the Citizens' Response Center (CRC) and the program coordinator, a professional entomologist. People calling want to talk to someone who can give them facts. A satisfied customer on first contact is our objective.

The CRC uses a toll-free hotline with a recorded message which asks the caller to record name, time and date of call, type of problem, and a phone number. CRC staff monitor the machine, returning calls promptly. Although not all callers leave specific messages, it helps to have some idea of the nature of the question they need answered. In addition, calls come in directly to the gypsy moth program office. Those concerning general information can be handled by CRC or administrative staff. Inquiries concerning pesticide effects and components are referred directly to the program coordinator.

Many calls are received after spraying is complete, when third, fourth and fifth instar caterpillars are most damaging. Citizens in untreated areas call, desperate for help. They are referred to private applicators and to the county extension agent for

specific pesticide information, sent illustrated tree banding instructions, and encouraged to contact community leaders to organize for the coming year's suppression campaign. Gypsy moth caterpillars convince even the most skeptical citizen of the benefits of some form of control.

The Anne Arundel County Department of Public Works is committed to providing our customers with convenient, economical and reliable service in a way that merits their trust and confidence. Note the use of the word "customers". It is recognized up front that public relations are an integral part of doing business every day. Whether it be mosquito control, road resurfacing, storm drain installation, or gypsy moth control, a surprised public is generally not a happy public, particularly when awakened at dawn by the distinctive sound of low flying aircraft passing over the neighborhood. Keeping surprises to a minimum is a major objective of the department's gypsy moth information program.

County/State/Federal Coordination

Teamwork is the key. More good information is always better than less, and in the case of Anne Arundel County, the state has been a valuable resource in providing material to county agencies. Federal and state programs are the fountainhead of any county effort, providing the scientific data, and the survey information, and the nuts and bolts knowledge of how to implement an aerial spray program. Although a county program is probably more effective on a person-to-person level, it could not be successful without the expertise and material provided by state and Federal programs. Utilizing Federal and state resources, county programs can provide the immediacy and responsiveness needed to keep its customers informed.

In Conclusion

* Why is a public relations program important? Without public understanding of the problem, there would be no support for a solution. Good public relations programs should be a priority at any level of government.

* What constitutes a public relations program? The timely dissemination of accurate, understandable information using every method available: newspapers, radio, television, slide/tape presentations, brochures, flyers, telephone and

personal contact. Be prepared to pay for advertisements in local newspapers and on radio stations. Don't rely on "community service" offers by the media to get in print or on the air. You get what you pay for.

* Is a county public relations program more effective than a state program or should both exist? Both programs require updated public relations efforts. Targeting the same audience on different levels, they are mutually beneficial. Used to their best advantage, state and local programs should be coordinated and updated for an inquiring public, assuring consistent, accurate information from both sources.

* Tips to those setting up a public relations program: have professional entomologists on staff and available to speak with the public. There are no substitutes for expertise, dedication, hard work, and a sense of humor.

As gypsy moth populations spread, more local governments will be faced with the challenge of helping citizens accustomed to responsive service. County programs can do the best job of providing accurate, timely information through every available information outlet.

THE INGREDIENTS OF A SUCCESSFUL GYPSY MOTH PUBLIC INVOLVEMENT PROGRAM

TERRY FREY
Public Information Specialist
USDA Forest Service
Appalachian Integrated Pest
Management Project
Morgantown, WV

What does it take to achieve a successful, gypsy moth, public involvement program? How is such a program defined and what would it accomplish if successful? As Public Information Specialist for the Appalachian Integrated Pest Management Project (AIPM), I have devoted considerable time and thought to this subject and have developed several ideas on the matter.

AIPM is the first large scale project of its kind undertaken against the gypsy moth. A cooperative effort involving Federal, State and County agencies, AIPM's objectives are to slow the spread and minimize the impact of the gypsy moth on a 12.7 million acre, 38 county area of Virginia and West Virginia.

Description of a Successful Public Involvement Program

A successful public involvement program is one that offers all citizens the opportunity to be aware of the gypsy moth problem, its treatment options, the decision making process of the responsible agency, and the consequences of treatment and non-treatment. It also offers all citizens the opportunity to participate in the decision making process and achieves a degree of such input. Finally it identifies all publics who might oppose agency objectives, contacts and solicits input from those publics and works toward substantial agreement toward a course of action by the responsible agency. This course of action will move toward the agency's gypsy moth management objectives which are also developed with public input.

What does it take to establish and maintain such a program? There are four basic ingredients that are necessary. These are:

1. The public involvement program must be initiated at least two years before "visible" defoliation occurs in an area or community. For purposes of this article, "visible" defoliation shall be defined as defoliation visible to the eye of an individual untrained in gypsy moth or forest management--probably 70 percent or greater.
2. The public involvement program must be driven by objectives rather than by techniques.
3. The public involvement program must discover and target its audience.
4. The program objectives, the target audience and the timing must determine the techniques to be used.

A Successful Public Involvement Program Must be Initiated at Least Two Years Prior to Visible Defoliation

Gypsy moth public involvement programs usually begin at or very shortly before the time when treatment activities are planned and when gypsy moth populations are at levels capable of producing visible defoliation. They almost always begin well after the gypsy moth management program has been established and management activities such as survey work.

A successful gypsy moth management program, begins as a public involvement program. That is, the public involvement ground work is done at the outset of the project. Local and regional publics are identified and categorized, key contacts are made, gypsy moth education programs are initiated and public feedback is received. Gypsy moth management technology is then applied relative to the needs identified by the public involvement program, instead of the other way around.

The gypsy moth is often used as an advertising agent. That is, the attention generated by severe defoliation is used to generate public interest. Decisions that are made at this point are often less than optimal and the options available to the manager are severely restricted.

A better time to initiate gypsy moth education is during the spring and summer of the year that *detectable populations* begin to appear in an area. This will usually allow one to three years before *visible defoliation*. In isolated infestations, where the gypsy moth management objective is eradication, visible defoliation should not occur during the life of the project. Therefore early public involvement is absolutely essential.

A Successful Involvement Program Is Objective Driven Rather than Technique Driven

Too often gypsy moth public involvement programs tend to be technique driven, that is, certain techniques, such as public meetings or brochures are embraced by the agency and become synonymous with public involvement. These techniques are applied over & over with little or no thought of what they are achieving. This is not to condemn these techniques any more than to condemn a hammer because it cannot do the job of a saw.

Like the gypsy moth program itself, the public involvement program must have objectives. Typical public involvement objectives might be "To increase the community awareness level of gypsy moth as a forest and shade tree pest" or "To solicit meaningful public input on what our treatment program should accomplish."

Gypsy moth management objectives are often designated, in general terms by legislative or executive mandate. Within these broad parameters, the public involvement program should help to or aid in developing the specific objectives of the gypsy moth management program.

Learn and Target Your Audience

In addition to identifying public involvement objectives, a successful public involvement program must help identify and prioritize the audiences to which it is to be directed. Certain members of the public *must* be reached if the program is to be successful, others should be reached, and some fall into the "nice to do" category. Once the audiences are identified and the prioritization is done, audiences can be addressed, as resources permit.

Identifying your audience is the hardest part of the entire program. Identifying means not only thinking through the broad categories of audiences such as affected landowners, government officials, and public land managers, but actually assigning names and addresses to the key audiences.

The first and most critical audience to address, and one that is often over-looked, is the managers and employees of the federal, state and local government agencies that are to implement and support the program. Agendas, motivations and values vary significantly not only among agencies but vertically within each agency. Assuming that passage of a law or declaration of agency policy will achieve full support from the rank and file is foolish and potentially fatal. Each segment of the agency work force must be specifically targeted, informed, and "sold" on the program.

Objective Plus Audience Plus Timing Equals Technique

Public involvement techniques to use are based on the objectives and the audience. For instance,

if our objective is "to increase basic gypsy moth awareness" and our target audience consists of landowners and home owners who may be threatened with defoliation in the next two years, direct mail or handbills might be the optimum technique.

Each public involvement objective will only apply to specific audiences. For instance, the objective of "thorough understanding of gypsy moth biology and treatment options, plus acceptance of agency policy as the reasonable course of action to take against the problem" might be a reasonable objective for managers of public land within the project area. Whereas an objective of "recognition of gypsy moth as a pest of forest and shade trees" and "name association of the responsible agency with the problem" may be reasonable objectives for all residents of the project area.

Timing is the third factor in the public involvement technique equation. Conventional wisdom says, with a fair degree of accuracy, that it is nearly impossible to stimulate public interest at the early times suggested in our first ingredient. Until people can see the problem in the form of visible defoliation it is difficult to stimulate a degree of interest. This is true if one restricts oneself to traditional techniques such as newsmedia, advertising, public meetings and brochures.

A technique that AIPM is testing is a series of participation exercises that allow the public to get involved, do something outdoors and know that they are contributing to the solution of the problem. AIPM has developed four exercises involving burlap banding, gypsy moth trapping, hunting egg masses and identifying susceptible trees. These, along with "Gypsy Moth in the Classroom", are the primary focus of AIPM efforts in advance of visible defoliation but after detectable populations are present.

As the gypsy moth population increases, other techniques will become appropriate for various audiences. For instance open houses can be useful for obtaining public input on treatment options and television can be a useful tool during treatment activities.

I recommend training in "Systematic Development of Informed Consent" offered by the Institute for Participatory Management and Planning of Monterey, California, (800) 622-4767, as a resource to help develop skills and methods for associating

objectives with audiences and determining the correct techniques.

To Sum It Up...

A successful public involvement program must begin at least two, and preferably, three years before visible defoliation. Such a program must be driven by objectives. The audiences to be involved must be identified and paired with the objectives. Public involvement techniques to be used must be based on the objectives, audience, and timing.

led to the success of each subsequent treatment program.

Greater co-operation and involvement of other agencies (CFS, BCFS, BCMAF, for example) has placed British Columbia in the forefront of pest management strategies in Canada. From their peripheral contribution in 1978, the Plant Protection Advisory Council has strengthened its position and role to encompass all aspects of strategic inter-agency planning and co-operation. Today, PPAC not only assesses actual or potential hazards to British Columbia agriculture and forestry from insects, plant diseases, weeds or other biotic agents--but also provides the broadest provincial forum for discussion of such hazards. As well, it advises and co-ordinates the actions of provincial, Federal, and other agencies when new or recurring pests appear. Acting as a quality control watchdog, PPAC will notify the respective agency concerned when remedial actions taken are deemed inadequate or might result in unforeseen problems. Advising provincial and Federal officials in the preparation of news releases, legislation or policies on pests in British Columbia--as well as establishing contingency procedures for new pests that may become established in the province--are also part of PPAC's mandate. Assessing biological or other control agents, reviewing the import and export of plant materials to ensure that only high quality pest-free stock is transported, and disseminating information and recommendations to member agencies or industries are all regular functions of PPAC.

GAINING SUPPORT FOR BRITISH COLUMBIA'S GYPSY MOTH WARS 1978-1988: A CASE STUDY IN PUBLIC RELATIONS

ALLAN W. CRAM
Consultant
Vancouver, B.C.

(Editor's Note: This article has been excerpted from: Gaining Support for British Columbia's Gypsy Moth Wars 1978-1988: A Case Study in Public Relations. Pest Management Report, ISSN 0710-7935; No. 12, British Columbia, Ministry of Forests. Copies of the complete 35-page report can be obtained by contacting the *Gypsy Moth News*, or R.F. DeBoo, Forest Health Program, 31 Bastion Square, Victoria, BC V8W 3E7.)

The intense public reaction to British Columbia's first gypsy moth eradication effort in 1979 was the catalyst for government agencies to revamp their attitudes toward urban pest management. Because of the major threat to B.C.'s forest-based economy should a gypsy moth infestation become established, a sense of urgency prevailed within government to gain public support for its eradication program. The response by government personnel was as dramatic and intense as the initial conflict, and the on-going process of refining public information and public participation procedures

Public Education

Since the Kitsilano infestation, several communities in British Columbia have been exposed to lengthy debates about the pest and how to deal with it. Public education is one of the best methods available to gain support for treatment measures. Materials such as pamphlets, articles, posters, videos, open house presentations, direct mailing, and regular contact between pest management officials and the public are sure ways to increase awareness of the problems associated with pests in the environment. As more people become aware of the gypsy moth threat, eradication programs should become easier to initiate. As Dr. Frazer said, "It takes a lot of energy to convince people that the potential threat of this pest is serious when they haven't seen it go on a rampage."

Alternative Insecticides

Much of British Columbia's success in eradicating pests with full public support can be attributed to the refinement of the alternative insecticide, *Bacillus thuringiensis*, (B.t.) The refinement and development of biological control substances is becoming a priority within agencies responsible for pest management, as public acceptance of any chemical in the environment will be increasingly difficult to attain.

Early Detection

Since the eastern provinces and the northeastern United States have resident populations of gypsy moth, continued introduction to British Columbia is inevitable. An integral part of gypsy moth control will be early detection and monitoring the province for signs of infestations. The expanded trapping and monitoring survey program, assisted by the various government agencies and supported by the Council of Forest Industries (COFI) and forest companies, deploys approximately 8,000 traps per year across the province.

Any expansion or refinement to the program will inevitably result in earlier detection of gypsy moths. Since B.C. has the highest rate of population increase in Canada, methods to selectively trap or monitor household movement of the moth into the province could help make the survey program more effective. Nevertheless, B.C. still has an excellent record of eradication.

Summary

The 10 years of experience gained in gypsy moth eradication measures from 1978 to 1988 has provided many valuable lessons to all those involved in the gypsy moth programs. The following steps are possible ways for government or industry agencies to achieve public support of broad-based, eradication measures in urban settings:

- **Research.** Be aware of all relevant research relating to substance options.

Identify potential sources of conflict. Determine public opinion in any given area by listening, keeping a clipping file, and maintaining a communications line within and outside B.C. to know what others are doing or thinking; keep abreast of pesticide regulation and use, especially in urban areas.

Plan thoroughly. Take the devil's advocate position and plan for all potential problems that could arise before, during, and after the public meeting and treatment program, and use a "decision-making profile" to determine the best option.

Allocate personnel effectively. Hire communications specialists for communications duties and technicians for the treatment implementation.

Keep no secrets. Approach the media and legitimate interest groups with information about the problem.

Inform the public. Focus attention on potential risks and how the public will benefit from the program. Help the general public identify with the goals of the program.

Present control options. Always give the public a choice. Don't make them feel as though they have no rights as citizens.

Local expertise. Independent support by a local medical doctor or respected community leader has more influence than a panel of outside experts.

Evaluate the campaign. Was it successful? Are there areas which need improvement? Revise techniques and/or information for the next program.

Plan again. Develop the next program from accumulated experience and current information base.

